RESEARCH PROGRAM ON Climate Change, Agriculture and Food Security

CGIAR CCAFS

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Promotion of Weather Resilient Technologies, Practices, and Services for Vegetables

464 farmers in Madhya Pradesh adopted improved / resilient practices, services, and technologies for vegetable cultivation.

India is the second-largest producer of vegetables in the world, though farmers face many challenges in vegetable cultivation. Selecting the right variety of seeds for vegetable crops like tomato, cucumbers, okra among others, and protecting the crops from the diseases, weeds, and insect pests are some of the major issues which the farmers of the project area faced. Based on the need assessment a portfolio of interventions was introduced to assist vegetable farmers in increasing their production and income.

Methodology and approach: Baseline assessment highlighted lower crop yield due to climatic variability, high labour hours for vegetable cultivation, diseases, and pest attacks on vegetable crops were some of the major problems being faced by farmers. This not only led to reduced production of vegetables but also impacted the nutrition intake of farmer's family members affecting the overall quality of their life.

Based on this assessment, a region-specific portfolio of activities was introduced to farmers. Farmers who were not cultivating vegetables were persuaded for vegetable cultivation (along with major crops being cultivated during Kharif and Rabi season). Cultivation and selling of vegetables like bitter guard, tomato, green pea, onion, okra, chilli, etc. helped farmers draw more income.

Farmers were also motivated to adopt organic practices such as the use of Biofertilizers and Biopesticides, vermicompost. This reduced their cost of cultivation and improved the quality of produce, which further added to their income. Practices like mixed vegetable cropping and cultivation on ridges and furrows, acted as a disaster risk reduction mechanism as it reduced the risk of crop damage due to excessive rainfall.

Takeaways

- Improved varieties of vegetable crops such as chilli, bitter guard, onion, tomato, green peas, okra, etc. increased the crop production as well as the income of farmers.
- Cultivation practices such as mixed cropping and cultivation on ridges and furrows were instrumental in increasing the adaptive capacity of farmers in case of excessive rains and flooding.
- Building the capacity of farmers to not only cultivate onions but also produce onion seeds (with the help of local Krishi Vigyan Kendra) not only increased their incomes but also linked them with a local government body, whom they can connect to, as and when required.
- Weather information and agro advisory services through mobile SMS and voice call assisted effective decision making by farmers.
- The use of sprinkler set for irrigation along with increased water storage (through well deepening) significantly reduced the risk of losing crops in drought conditions.
- Use of biofertilizers and biopesticides along with vermicompost reduced the cost of cultivation and improved quality production.

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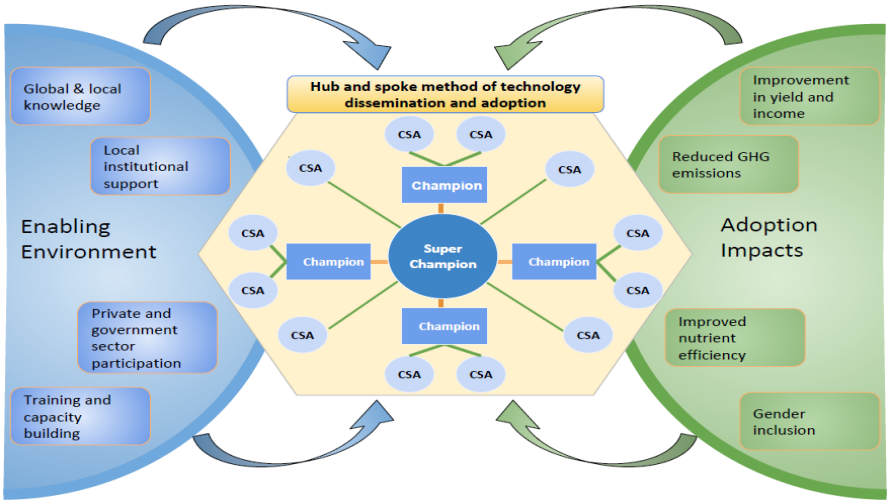
Story from the field

With the technical help and guidance of the project team, Sulanta Brajlal a women farmer of Betul district-Madhya Pradesh started vegetable cultivation on 0.5 acres of land in an area at the back of her house.

She started growing bitter-guard and chillies in her vegetable garden via employing the acquired knowledge of sustainable farming. This reduced her dependence on the market to purchase vegetables instead after getting her fill, for the household purpose she started selling surplus vegetables in the farmers market, which in-turn led to a saving of INR 12,200. This amount was much higher than the earnings she received by cultivating maize on the same piece of land (INR 2,500).

Scaling framework



Project beneficiaries

A total of 464 farmers benefitted from improved weather-resilient technologies and practices for vegetable cultivation across two districts.

A total of 94 women farmers are involved in cultivating vegetables for sale in market.

Outcomes

- Diversification of farmer's income reduced the vulnerability of farmers to crop failures.
- Vegetable cultivation increased vegetable consumption in the household, thereby increasing nutritional security of family.
- Reduced dependence on markets to purchase vegetables.

Learn more:
https://ccafs.cgiar.org/scaling-out-climate-smart-village-program-vulnerable-areas-indo-gangetic-plains-india#.XobzOYgzbIU

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